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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,837	08/21/2003	Chia-Chen Liao	YOIP0002USA	1836

27765 7590 03/29/2004

NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)  
P.O. BOX 506  
MERRIFIELD, VA 22116

EXAMINER
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BLACKMAN, ROCHELLE ANN J

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/604,837

Applicant(s)

LIAO ET AL.

Examiner

Rochelle Blackman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: In paragraph [0005], line 10, there should be a space between "lens" and "143" and on lines 16 and 18, there should be a space between "lens" and "17."

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Eguchi et al., U.S. Patent Application Publication No. 2002/0030914.

Eguchi discloses an "optical system for projection display"(see FIG. 6) comprising: a "light source for producing a light beam"(see 1 of FIG. 6); an "imaging system having a light valve and a projection lens"(for "light valve", see 10B, 10G, 10R and for "projection lens", see 12 of FIG. 6); and a "total reflection lens having a total reflection surface"(see 182 of FIG. 6); "wherein the total reflection lens receives the light beam from the light source and, by using the total reflection surface, reflects the light beam onto the light valve which reflects the light beam into the projection lens"(see

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“total reflection lens” 182, “light source” 1, “light valve” 10R, and “projection lens” 12 relative to each other in FIG. 6); “wherein the total reflection surface is a total reflecting coating”, “wherein the total reflection surface is a mirror”, and “wherein the total reflection lens is a concave mirror”(see paragraph [0136]); and “wherein an integrator is placed between the total reflection lens and the light source”(see 3 of FIG. 6).

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Park, U.S. Patent Application Publication No. 2003/0030914.

Park discloses an “optical system for projection display”(see FIG. 3) comprising: a “light source for producing a light beam”(see 30 of FIG. 3); an “imaging system having a light valve and a projection lens”(for “light valve”, see 42 of FIG. 3 and for “projection lens”, see projection lens in paragraph [0059]); and a “total reflection lens having a total reflection surface”(see 32 and 32A of FIG. 3); “wherein the total reflection lens receives the light beam from the light source and, by using the total reflection surface, reflects the light beam onto the light valve which reflects the light beam into the projection lens”(see “total reflection lens” 32,32A, “light source” 30, and “light valve” 40 relative to

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each other in FIG. 6); "wherein the total reflection lens further comprises a transparent surface facing to the light source"(see 32, 32A, and 34 of FIG. 6); "wherein the total reflection surface is a total reflecting coating", and "wherein the total reflection surface is a mirror"(see 32A of FIG. 6); "wherein an integrator is placed between the total reflection lens and the light source"(see 32 of FIG. 6).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawai et al., U.S. Patent No. 6,343,862 in view of Memezawa et al. U.S. Patent No. 6,433,942.

Sawai discloses an "optical system for projection display"(see FIG. 1) comprising: a "light source for producing a light beam"(see 11 of FIG. 1; an "imaging system having a light valve and a projection lens"(for "light valve", see 18 and for "projection lens" see 19 of FIG. 1).

Sawai also discloses a PBS 13 including a film 13c that allows P-polarized light to pass through which, is reflected by total reflection surface 13d. Sawai also discloses an "integrator" 12a "placed between" the total reflection surface 13d and "light source" 13.

Sawai does not appear to disclose a total reflection "lens".

Memezawa discloses using an optical component 2 including a first surface S1 (lens surface S1) facing a light source 1 and adapted to converge the transmitted light from a light source 1 at a position offset a pre-set distance, and a second surface S2 (reflecting surface S2) provided facing lens surface S1 and adapted to reflect the transmission light converged by the lens function of the lens surface S1 towards end face 4a of an optical transmission medium 4, in an optical apparatus, rather than a polarization beam splitter, in order to reduce the cost and size of the apparatus without lowering light communication performance.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the polarizing beam splitter (PBS) for the optical component of the Memezawa reference in the "optical system for projection display" of the Sawai reference, in order to reduce the cost and size of the "optical system for projection display" as taught by Memezawa.

### ***Conclusion***

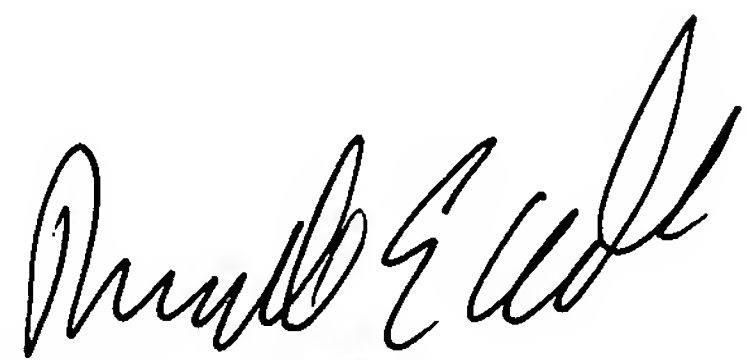
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russell Adams can be reached on (571) 272-2851. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RB



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